

#24

Attorney Docket No.: 23452-090

A circular black and white stamp. The text "OIPE" is at the top, "JUN 25 2004" is in the center, and "PATENT & TRADEMARK OFFICE" is at the bottom. To the right of the stamp, the text "JC34" is visible.

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(1) REAL PARTY IN INTEREST

By virtue of the assignment recorded December 15, 1999 at reel 010440, frame 0829, the real party in interest is **International Business Machines Corporation**, a New York corporation having a place of business in Armonk, New York.

(2) RELATED APPEALS AND INTERFERENCES

Based on information and belief, there are no related appeals or interferences.

(3) STATUS OF THE CLAIMS

Claims 1, 8, 15, 22 and 29-34 are pending in this application. Claims 29, 31, and 32 stand rejected under 35 U.S.C. §102(e) as allegedly being anticipated by U.S. Patent Number 5,778,213 issued to Shakib *et al.* ("Shakib"). Claims 1, 8, 15, and 22 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Shakib in view of U.S. Patent Number 6,216,102 issued to Martino *et al.* ("Martino") and Patent Cooperation Treaty Patent Application Number WO 92/15067 assigned to Marshall ("Marshall"). Dependent claim 30 stands rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Shakib in view of Marshall. Dependent claim 31 stands rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Shakib in view of Marshall and U.S. Patent Number 6,141,656 issued to Ozbutum *et al.* ("Ozbutum"). Dependent claims 33 and 34 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Shakib in view of Martino.

Appellants appeal these rejections.

(4) STATUS OF AMENDMENTS

Appellants have not amended the claims subsequent to the Final Office Action dated September 25, 2003.

(5) SUMMARY OF THE INVENTION

Appellants' invention relates to a system and method of evaluating characters in a message against a bank of available character sets (Fig. 1, ref 110) to determine which, if any, of the character sets may represent a message in a particular language (see specification page 3, lines 11-16).

In some embodiments, each character in a message may be compared to each of the character sets in the table bank to determine which character sets may represent the character (see specification page 11, lines 3-9). The invention may then determine the character set that best represents the given message (see specification page 14, lines 22-25).

(6) ISSUES

1. Whether Martino U.S. Patent No. 6,216,102 qualifies as prior art with respect to claims 1, 8, 15, 22, 33, and 34.
2. Whether claims 29 and 32 are unpatentable under 35 U.S.C. §102(e), as anticipated by Shakib.
3. Whether claim 30 is unpatentable under 35 U.S.C. §103(a), as obvious in view of Shakib and Marshall.

(7) GROUPING OF CLAIMS

Claims 1, 8, 15, 22 and 29-34 are separately patentable. Appellants, however, have grouped claims that include similar features. In particular, Appellants request that claims 1, 8, 15, 22, 33, and 34 be considered to stand and fall together, that claims 30 and 31 be considered to stand and fall together, and that claims 29 and 32 be considered to stand and fall separately.

(8) ARGUMENT

For issue 1, the question to be resolved is whether Martino U.S. Patent No. 6,216,102 qualifies as prior art with respect to the claimed invention. Appellants respectfully submit that Martino is not applicable prior art with respect to the claimed invention, pursuant to 35 U.S.C. 103(c), because both Martino et al. and the claimed invention were, at the time the invention was

made, commonly owned. Accordingly, the Examiner's rejection of claims 1, 8, 15, 22, 33, and 34 is improper.

For issue 2, the question to be resolved is whether Shakib anticipates claims 29 and 32. Appellants submit that the claims are patentable, because Shakib does not disclose all the claim elements. Appellants provide below a discussion of the requirements for anticipation under 35 U.S.C. §102(e) and an application of these requirements to each rejected claim or claim grouping.

For issue 3, the question to be resolved is whether claim 30 is obvious in view of Shakib and Marshall. Appellants submit that the Examiner has failed to establish a *prima facie* case of obviousness based on Shakib and Marshall. Appellants provide below a discussion of the requirements for a prima facie case of obviousness under 35 U.S.C. §103(a) and an application of these requirements to each rejected claim or claim grouping.

1. Martino Is Not Prior Art

Claims 1, 8, 15, and 22 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Shakib in view of U.S. Patent Number 6,216,102 issued to Martino et al. ("Martino") and Patent Cooperation Treaty Patent Application Number WO 92/15067 assigned to Marshall ("Marshall").

Appellants respectfully submit that, pursuant to 35 U.S.C. §103(c), Martino et al. (U.S. 6,216,102 B1), the reference newly applied in the Final Rejection, does not qualify as prior art against the present application. Section 103 (c) of Title 35 states:

(c) Subject matter developed by another person, which qualifies as prior art only under one or more subsections (e), (f), and (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

In particular, both Martino et al. and the claimed invention were, at the time the invention was made, subject to obligation of assignment to International Business Machines, Corp. Therefore,

the Examiner's rejection is improper. As a result, the pending claims are patentable over the references relied upon by the Examiner; and the rejection must be withdrawn.

Dependent claims 33 and 34 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Shakib in view of Martino. At least for the reason that Martino is not prior art against the claimed invention, Appellants submit that claims 33 and 34 are allowable over the cited prior art. Accordingly, the Examiner's rejection is improper and must be withdrawn.

2. Rejection Under 35 U.S.C. §102(e), as Allegedly Anticipated by Shakib

Requirements for anticipation

As stated in the MPEP § 2131, a claim is anticipated only if each element as set forth in the claim is found, either expressly or inherently described in a single prior art reference. The identical invention must be shown in as complete detail as is contained in the claim. *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

Claim 29

Appellants respectfully submit that the rejection of claim 29 under 35 U.S.C. §102(e) as allegedly being anticipated by Shakib is improper for at least failing to disclose all the claim elements.

Claim 29 recites, *inter alia*, the features of "receiving at least one indicator from said character table bank, wherein said character table bank receives a character as input and provides at least one indicator corresponding to a pre-determined character set in which said character can be rendered" and "comparing said at least one indicator for each character to determine a character set in which said plurality of characters can be rendered." At least these features are not disclosed by Shakib.

In particular, Shakib appears to disclose a conventional character set conversion table to provide conversion of one character set to another corresponding character set. *See* col. 4, lines 8-41 of Shakib. Thus, Shakib is not directed to evaluating characters in a message to determine a

character set in which the plurality of characters of the message can be rendered. Rather Shakib converts a character from one character set to another specified character set. Appellants submit that Shakib's character set conversion table does not receive at least one indicator from said character table bank, wherein said character table bank receives a character as input and provides at least one indicator corresponding to a pre-determined character set in which said character can be rendered.

In particular, a user in Shakib must request or specify a desired form of character set (i.e., character set after conversion). *See* Fig. 2, element 30, Fig. 3, element 40, and col. 4, lines 11-14 and 34-36 of Shakib. For purposes of convenience, column 4, lines 11-15 of Shakib have been repeated below:

“When making a request at step 30, the user specifies the character set and language specific rules for the data file to be transmitted back to the user...”

Appellants submit that Shakib requires a user to determine the character set. Because Shakib requires a user to determine the character set, Shakib can not disclose a method of evaluating characters in a message comprising: comparing said at least one indicator for each character to determine a character set in which said plurality of characters can be rendered. For at least this reason, Appellants respectfully submit that Shakib does not anticipate claim 29. Accordingly, the Examiner's rejection is improper and must be withdrawn.

Claim 32

Appellants respectfully submit that the rejection of claim 32 under 35 U.S.C. §102(e) as allegedly being anticipated by Shakib is improper for at least failing to disclose all the claim elements.

Appellants note that the Examiner has not addressed any of the following features of claim 32. Accordingly, the rejection of claim 32 is improper and must be withdrawn.

Claim 32 includes, *inter alia*, the features of:

1. “individually comparing each of the characters of the message to said plurality of pre-determined candidate character sets in the character table bank to determine a match

between each of the characters of the message and one or more of said plurality of pre-determined candidate character sets... comparing each of the characters of the message identifies one or more of said plurality of pre-determined candidate character sets capable of expressing each of the characters of the message” and

2. “performing a logical operation among said identified pre-determined candidate character sets to determine said pre-determined candidate character sets best suited to express the message.”

Shakib does not disclose these features. At least for this reason, Appellants submit that the Examiner’s rejection is improper and must be withdrawn.

Claim 31

Appellants note that the Examiner has included claim 31 in the §102(e) rejection of claims 29 and 32. However, intervening dependent claim 30 was not included in the rejection, and the Examiner did not address any of the features of claim 31 in this rejection. Additionally, claim 31 is included in a subsequent §103(a) rejection. Appellants assume that the inclusion of claim 31 in this rejection is a typographical error. Accordingly, claim 31 is addressed below.

3. Rejection Under 35 U.S.C. §103(a), as Allegedly Obvious, Shakib in view of Marshall

Requirements for a prima facie case of obviousness

As stated in the MPEP § 2143, three requirements must be met to establish a *prima facie* case of obviousness under 35 U.S.C. § 103(a). The requirements are: (1) the prior art must teach or suggest all the claim elements, (2) there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the references or combine reference teachings, and (3) there must be a reasonable expectation of success.

Appellants respectfully submit that at least the first two requirements are not met by the asserted rejection. Therefore, Appellants examine those requirements in further detail.

All of the claim elements must be taught or suggested

To establish *prima facie* obviousness of a claimed invention, all the claim elements must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). All words in a claim must be considered in judging the patentability of that claim against the prior art. *In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970).

Suggestion or Motivation to modify the references

Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988).

Claims 30 and 31

Appellants respectfully submit that the rejection of claim 30 under 35 U.S.C. §103(a) as allegedly obvious in view of Shakib and Marshall is improper for at least failing to teach or suggest all the elements of the claim.

Appellants submit that dependent claims 30 and 31 depend from and add additional patentable features to allowable claim 29. Thus, Appellants submit that claims 30 and 31 are allowable, at least, by virtue of their dependency. Furthermore, Marshall fails to make up for the deficiencies of Shakib set forth above. For at least this additional reason, claims 30 and 31 are patentable over the references relied upon by the Examiner.

In addition, claim 30 recites, *inter alia*, the feature of “wherein said character table bank receives a character as input and provides a bit mask that indicates whether each of the plurality of character sets can render said character.” Shakib and Marshall, either alone or in combination with one another, fail to teach or suggest at least this feature of the claimed invention.

Appellants submit that neither Shakib, nor Marshall, set forth any teaching, suggestion, or motivation to combine the two references. The Examiner acknowledges that Shakib does not disclose that the character table bank receives a character as input and provides a bit mask that indicates whether each of the plurality of character sets can render said character. *See* Final Office Action page 6, paragraph 7. The Examiner relies on Marshall to allegedly teach this feature.

In particular, the Examiner states:

“[T]his feature is well-known in the art as evidenced by Marshall who teach [sic] in the abstract the testing fro [sic] a character match is effected by combining the possible record of a character of the substring being examined in which the combining operation involving forming an intermediate translated bit mask.” *See* Final Office Action page 6, paragraph 7.

Shakib generally discloses conversion of a character from one character set to another character set, and Marshall generally discloses using a bit mask to locate a substring character pattern within a string. Shakib, however, does not teach or suggest, or for that matter relate to, anything about searching for a string or a character pattern match. Thus, the Examiner's alleged motivation does not even apply to Shakib. Therefore, one of ordinary skill in the art at the time the invention was made would not have had any reason to combine Marshall with Shakib. Thus, the Examiner's rejection is improper.

For the sake of argument, even if there were a legally proper motivation to combine Shakib and Marshall, Shakib and Marshall, when combined, fail to teach or suggest the claimed invention. At best, Shakib and Marshall, in combination with one another, still only disclose a character set conversion table to provide conversion of one character set to another character set that may include the bit mask substring search capability disclosed by Marshall.

Appellants submit that Shakib and Marshall, either alone or in combination with one another, fail to teach a method of evaluating characters in a message to determine a character set in which a plurality of characters in the message can be rendered, including wherein said character table bank receives a character as input and provides a bit mask that indicates whether each of the plurality of character sets can render said character, among other things. As a result,

claim 30 is patentable over Shakib and Marshall. Claim 31 depends from and adds additional features to claim 30; therefore claim 31 is allowable, at least, by virtue of its dependency.

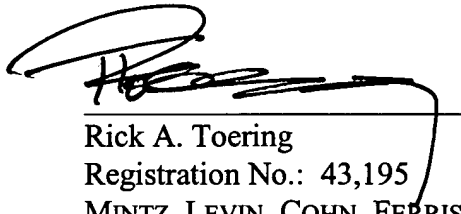
Conclusion

Because the references relied upon by the Examiner, either alone or in combination with one another, fail to disclose, teach or suggest all of the features of the claims as set forth above, Appellants respectfully request that the rejection of each of pending claims 1, 8, 15, 22 and 29-34 under 35 U.S.C. §102, and/or 35 U.S.C. §103 be reversed.

The present Brief on Appeal is being filed in triplicate.

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Respectfully submitted,



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APPENDIX A—PENDING CLAIMS

1. **(Previously Presented)** A method of evaluating characters in a message against a character table bank, the character table bank comprising a plurality of pre-determined candidate character sets corresponding to a plurality of languages, the method comprising the steps of:

- a) accepting an input of the message, wherein the message comprises one or more characters of the plurality of languages;
- b) evaluating the message by individually comparing each of the characters of the message to the plurality of pre-determined candidate character sets in the character table bank to determine a match between the plurality of pre-determined candidate character sets and the message, wherein the step of comparing each of the characters of the message tests the ability of each of the plurality of pre-determined candidate character sets to express that character by performing a logical mask between a universal code for that character and an indicator in the character table bank indicating whether each of the plurality of pre-determined candidate character sets contains that character;
- c) computing a weighted total number of characters matched to each of the plurality of pre-determined candidate character sets by applying a weighting factor to the total number of characters matched; and
- d) selecting a best match between the message and the plurality of pre-determined candidate character sets by identifying the candidate character set corresponding to a pre-determined value for the weighted total number of characters matched.

2-7. **(Cancelled).**

8. **(Previously Presented)** A system for evaluating characters in a message against a character table bank, said character table bank including a plurality of bit masks, said character table bank indexed by a particular character, said character table bank producing one of the bit masks that identifies one or more of a plurality of pre-determined candidate character sets

capable of expressing said particular character, the system comprising:

an input interface to accept an input of the message, wherein the message includes a plurality characters in one or more languages; and

a processor unit, connected to the input interface, the processor unit evaluating the message by individually comparing each of the characters of the message to the plurality of pre-determined candidate character sets in the character table bank to determine a match between the plurality of pre-determined candidate character sets and the message, computing a weighted total number of characters matched to each of the plurality of pre-determined candidate character sets by applying a weighting factor to the total number of characters matched, and selecting a best match between the message and the plurality of pre-determined candidate character sets by identifying the candidate character set corresponding to a pre-determined value for the weighted total number of characters matched, wherein the processor unit evaluating the message tests the ability of each of the plurality of pre-determined candidate character sets to express that character by performing a logical operation between the bit masks that identify one or more of the plurality of pre-determined candidate character sets expressing each of the characters of the message.

9-14. (Cancelled).

15. (Previously Presented) A system for evaluating characters in a message against a character table bank, said character table bank including a plurality of bit masks, said character table bank indexed by a particular character, said character table bank producing one of the bit masks that identifies one or more of a plurality of pre-determined candidate character sets capable of expressing said particular character, the system comprising:

input interface means to accept an input of the message, wherein the message includes a plurality characters in one or more languages; and

processor means, connected to the input interface means, the processor means evaluating the message by individually comparing each of the characters of the message to the plurality of pre-determined candidate character sets in the character table bank to determine a match between the plurality of pre-determined candidate character sets and the message, computing a weighted

total number of characters matched to each of the plurality of pre-determined candidate character sets by applying a weighting factor to the total number of characters matched, and selecting a best match between the message and the plurality of pre-determined candidate character sets by identifying the candidate character set corresponding to a pre-determined value for the weighted total number of characters matched, wherein the processor unit evaluating the message tests the ability of each of the plurality of pre-determined candidate character sets to express that character by performing a logical operation between the bit masks that identify one or more of the plurality of pre-determined candidate character sets expressing each of the characters of the message.

16-21. (Cancelled).

22. (Previously Presented) A storage medium for storing machine readable code, the machine readable code being executable to evaluate characters in an electronic message to a character table bank, said character table bank including a plurality of bit masks, said character table bank indexed by a particular character, said character table bank producing one of the bit masks that identifies one or more of a plurality of pre-determined candidate character sets capable of expressing said particular character, the medium comprising the steps of:

- a) accepting an input of the message, wherein the message includes a plurality of characters in one or more languages;
- b) evaluating the message by individually comparing each of the characters of the message to the plurality of pre-determined candidate character sets in the character table bank to determine a match between the plurality of pre-determined candidate character sets and the message, wherein the evaluating the message tests the ability of each of the plurality of pre-determined candidate character sets to express that character by performing a logical operation between the bit masks that identify one or more of the plurality of pre-determined candidate character sets expressing each of the characters of the message;
- c) computing a weighted total number of characters matched to each of the plurality of pre-determined candidate character sets by applying a weighting factor to the total number of characters matched; and

d) selecting a best match between the message and the plurality of pre-determined candidate character sets by identifying the candidate character set corresponding to a pre-determined value for the weighted total number of characters matched.

23-28. (Cancelled)

29. (Previously Presented) A method of evaluating characters in a message comprising: receiving a plurality of characters, each character associated with one or more languages; providing each character in said plurality of characters to a character table bank; receiving at least one indicator from said character table bank, wherein said character table bank receives a character as input and provides at least one indicator corresponding to a pre-determined character set in which said character can be rendered; and

comparing said at least one indicator for each character to determine a character set in which said plurality of characters can be rendered.

30. (Previously Presented) The method of claim 29, wherein said character table bank receives a character as input and provides a bit mask that indicates whether each of a plurality of character sets can render said character.

31. (Previously Presented) The method of claim 30, wherein said comparing comprises 'ANDing' said bit mask for each character together to determine which of said plurality of character sets can render said character.

32. (Previously Presented) A method of evaluating characters in a message against a character table bank, the character table bank including a plurality of pre-determined candidate character sets corresponding to a plurality of languages, the method comprising:

accepting an input of the message, wherein the message includes a plurality of characters associated with one or more languages;

individually comparing each of the characters of the message to said plurality of pre-

determined candidate character sets in the character table bank to determine a match between each of the characters of the message and one or more of said plurality of pre-determined candidate character sets, wherein said comparing each of the characters of the message identifies one or more of said plurality of pre-determined candidate character sets capable of expressing each of the characters of the message; and

performing a logical operation among said identified pre-determined candidate character sets to determine said pre-determined candidate character sets best suited to express the message.

33. **(Previously Presented)** The method of claim 32, further comprising a step of computing a weighted total number of characters matched to each of said plurality of pre-determined candidate character sets by applying a weighting factor to the total number of characters matched.

34. **(Previously Presented)** The method of claim 33, further comprising a step of selecting a best match between the characters of the message and said plurality of pre-determined candidate character sets by identifying one or more of said plurality of pre-determined candidate character sets corresponding to a pre-determined value for the weighted total number of characters matched.